



R.R. Amplifiers

User manual

MLP4

Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (p. 2; p. 4). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, this User manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.



Version	Date	Auteur
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1. Using the unit safely

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSON

About  WARNING and  CAUTION Notice

 WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly
 CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

-----ALWAYS OBSERVE THE FOLLOWING-----

 **WARNING**

- Do not open or perform any internal modifications on the unit.
 - Do not attempt to repair the unit, or replace parts. Refer all servicing to only R.R.Amplifiers.
- Never install the unit in any of the following locations:
- Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
 - Damp (e.g., baths, washrooms, on wet floors); or are
 - Exposed to steam or smoke; or are
 - Subject to salt exposure; or are
 - Humid; or are
 - Exposed to rain; or are
 - Dusty or sandy; or are
 - Subject to high levels of vibration and shakiness

 **WARNING**

- Make sure you always have the unit placed so it is level and sure to remain stable. Never place it on stands that could wobble, or on inclined surfaces.
- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit. Immediately turn the power off, and request servicing by R.R.Amplifiers, when:
 - Smoke or unusual odour occurs
 - Objects have fallen into, or liquid has been spilled onto the unit; or
 - The unit has been exposed to rain (or otherwise has become wet); or
 - The unit does not appear to operate normally or exhibits a marked change in performance.
- Protect the unit from strong impact. (Do not drop it!)

 WARNING

- When cleaning the unit, only use a water moistened cloth. Do not use a wet cloth, or use other liquids, see Maintenance.
- This device needs proper grounding for a safe use.

 CAUTION

- Try to prevent cords and cables from becoming entangled. Be good for your cables.
- Disconnect all cords coming from external devices before moving the unit.
- Make all connections to the unit before powering the device(s). This can prevent ear or unit damage because units can produce hard popping or clicking noises while powering up.

2. Important Notes

Power Supply

Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.

- Noise may be produced if wireless Communications devices, such as cell phones, Are operated in the vicinity of this unit. Such Noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.

- When moved from one location to Another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.

- Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolour or mar the surface.

You can place a piece of felt or cloth under the rubber feet to prevent this from happening. If you do so, please make sure that the unit will not slip or move accidentally.

Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, nonabrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.

- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

3. Additional Precaution

- Use a reasonable amount of care when using the unit's buttons, switches, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.



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4. What's in de box

When you open the box, please check that al items are present. Please contact R.R.Amplifiers when something is missing.

- MLP4
- This User manual printed.

Tips & Tricks for best results

Use a good quality power supply (isolated outputs) for you effects.

This will prevent groundloops that may cause hum or other unwanted noises or side effects.

Use good quality (patch) cable.

When good quality (patch) cable is used, with good quality TS ¼" connectors, the best results in eighter quality and reliability will be achieved.

5. Introduction

Congratulations on choosing this R.R.Amplifiers device. Our devices are developed and build with the highest attention and quality possible.

We are very confident that you will be familiar with the MLP4 very quickly, and will appreciate the versatility and high quality of this unit.

By using the MLP4 every effect will be treated as if it's the only one in the chain. It will "see" and "feed" the same impedance, no matter how many effects are active. And only the active loop puts its effect into the signal chain. This ensures a very transparent sound without any tonal losses. The small size enclosure will make it easy to implement it in your system (pedalboard or rack system).

Remco Ranschaert

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5.1 Key Features

- Small-sized unit
- High quality audio components are used
- High quality input buffer
- Independent line drivers for every loop
- Relay switching
- Midi In and thru
- 340 pre-sets in PC. (CC mode available on when ordered)
- Midi channel set thru dip-switches

5.2 Website

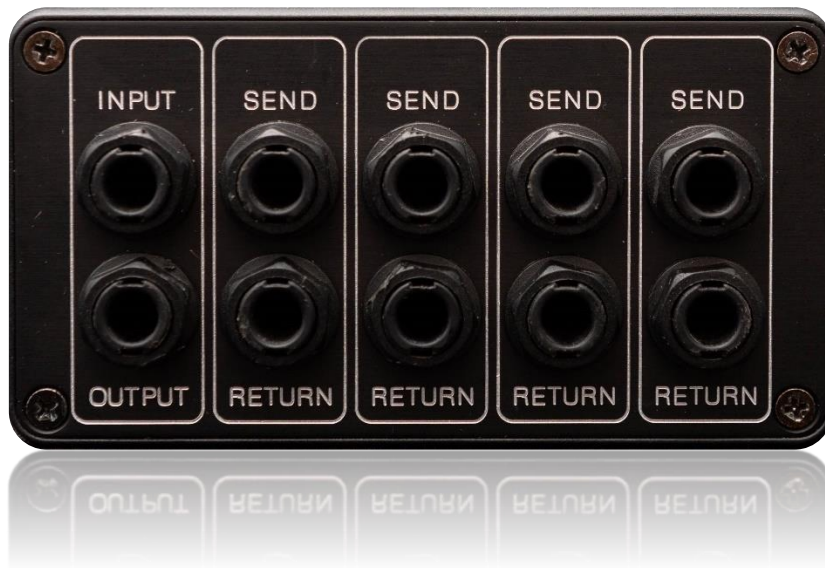
This User manual is also available on the website: rramplifiers.nl/mlp4

6. Top Panel Description



1. Channel
With this Dip-switches you can preset the midi channel (see table in 13 for settings)
You need to reboot after adjusting de setting.
2. Buttons loop 1 -4
Select/monitor the loop. Press to activate. When a midi program change has been received, and one or more loops are selected, the Save button will blink. Press the Save button to save this preset/program change.
3. Save button
When you press the button while blinking, that loop(s) is saved for that specific Midi Program Change. By ignoring the Blinking Save button, the Program Change will not be saved.
4. PWR
Led to monitor power supply.
5. Midi indicator
Blinks when a midi message is coming in.

7. Front connection Panel Description



1. Input/output
Input from guitar or other device , and output to an amp or other device. This path utilizes a high quality buffer.
2. Sends
Mono 1/4" Jack's. All these Sends utilizes our high quality line drivers for best and stable impedance. Every effect "sees" and "feeds" the same Impedance. When the loop is not selected, the send to the effect is grounded by relay.
3. Returns
Mono 1/4" Jack's. From your effect, it "sees" always a 50k Ω impedance. When a loop is selected, a relay puts also your effect into the chain.

8. Back connection Panel Description



1. Power supply
Input 12VDC centre negative, 250mA
2. Midi In
Standard Midi din-connector. .
3. Midi Thru
This a copy of the incoming midi.

9. Connections

All connections are TS ¼"jack connections.
Please use good quality signal/guitar cable for best results.

10. Midi

The Midi Thru is a copy of the incoming Midi-in signal.

The Unit responds to PC's.

the units can process PC's till PC#340.

Note: CC's is possible, please note this when ordering. Standard loop 1 = CC#1, loop 2 =CC#2, loop 3 = CC#3 and loop 4 = CC#4. When you order, we can program your desired CC's.

When you want to change this later, please contact us for support.

11. Unit Specifications

Input Impedance	>1MΩ
Loop returns Impedance	50kΩ
Crosstalk Level	<120dBu
Noise Floor	<120dBu
Frequency Response	20Hz to 80kHz
Max Input Level	+24dBu
Gain	unit is unity gain
loop Switching	(electromechanical relay switching)
Dimensions	134 x107 x 56 mm
Use between	0°C and 40°C

12. Power supply

Input Voltage	12V centre negative
Required Current	250mA

13. Midi channel setting

Channel dipswitch setting				
Channel	1	2	3	4
1	o	o	o	o
2	x	o	o	o
3	o	x	o	o
4	x	x	o	o
5	o	o	x	o
6	x	o	x	o
7	o	x	x	o
8	x	x	x	o
9	o	o	o	x
10	x	o	o	x
11	o	x	o	x
12	x	x	o	x
13	o	o	x	x
14	x	o	x	x
15	o	x	x	x
16	x	x	x	x

X = on

14. Warranty

R.R.Amplifiers warrants the product to be free from defects in material and workmanship for a period of two (2) year from the original date of purchase. If the product fails within the warranty period, R.R.Amplifiers will repair or, at our discretion, replace the product at no cost to the original purchaser.

14.1 Exclusions

This warranty covers defects in manufacturing discovered while using this product as recommended by R.R.Amplifiers. This warranty does not cover loss or theft, nor does the coverage extend to damage caused by misuse, abuse, unauthorized modification, improper storage, lightning, or natural disasters.

14.2 Limits of Liability

R.R.Amplifiers will not be held liable to any party for damages that result from the failure of this product. Damages excluded include, but are not limited to, the following: lost profits, lost savings, damage to other equipment, and incidental or consequential damages arising from the use, or inability to use this product. In no event will R.R.Amplifiers be liable for more than the amount of the purchase price, not to exceed the current retail price of the product. R.R.Amplifiers disclaims any other warranties, express or implied. By using the product, the user accepts all terms herein.

14.3 How to Obtain Service Under this Warranty

For all customers: Contact R.R.Amplifiers through our website at <http://www.rramplifiers.nl>, or dropping a email to info@rramplifiers.nl . Proof of original ownership may be required in the form of a purchase receipt.